Inclusive Teaching and Learning in the UK Higher Education Sector: Analysis, Research and Recommendations

Table of Contents

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1. Introduction

This paper explores, explains and illustrates inclusive teaching and learning principles and practices and how they have been deployed in the UK Higher Education (HE) sector. One purpose of this report is to identify the main drivers for the increased focus on the need to embed inclusive teaching and learning practices, and how higher education providers (HEPs) are going about delivering this aim. It also aims to identify examples of good practice in this area which are already happening at Cambridge. Although inclusive teaching and learning has intrinsic value for all students, recent government changes to Disabled Students' Allowances (DSAs) provision (and other developments such as the Teaching Excellence Framework – TEF) have pushed this issue further to the fore, encouraging HEPs to accelerate existing work in this area. This report details the various strategies mobilised by a representative range of HEPs and evaluates their success. The recommendations that result are specifically tailored to the University of Cambridge; however these strategies may also be viable for use at other institutions.

2. Drivers for Change

Changes to DSAs

The Higher Education system in England has become increasingly diverse in terms of student body in the last 10 years. During this time the number of disabled students accessing HE has increased from just over 16,700 new entrants in 2003/04 to over 51,000 in 2012/13, and the proportion of full-time UK undergraduate students in receipt of DSAs has risen from 3.6% in 2004/05 to 7.2% 2014 (IES, 2016). These statistics demonstrate a positive step towards equal access, however this does not necessary correlate with an increase in student satisfaction or attainment for disabled students (Fuller et al, 2004; Konur, 2006). As Paul writes, "even though the enactment of various disability laws has contributed to the increasing enrolment of students with disabilities in higher educational institutions, these students constantly face various barriers in their educational environment" (2000, p.209). Unfortunately, disabled students continue to face stigma relating to their disability, which discourages disclosure, and attainment levels remain below the average of their peers (ECU, 2015; Trammel, 2009; Konur, 2006). Trammel writes, "as students with disabilities break through initial access barriers, they often discover that a complex layer of social barriers still remain beneath the surface, potentially interfering with their success" (2009, p.1). In this sense, although disabled students are increasingly mobilised to enter higher education, institutions are not yet able to provide parity with regards to opportunity to achieve. In an effort to mitigate

unequal attainment rates, disability services actively offer specialist support to disabled students who ask for it. This often takes the form of mentoring, notetaking, study skills and ad hoc reasonable adjustments, which are recommended by disability services.

The recent drive for inclusive teaching and learning practices have been instigated by efforts to 'rebalance' responsibilities, between government funding and institutional support for disabled students. In December 2015, the Minister of State for Universities and Science, Jo Johnson, announced that for the 2016/17 cohort and beyond DSAs would no longer cover the financial burden of band 1 and 2 of non-medical tasks for disabled students. Despite adding financial strain upon universities' often under-resourced disability support services, this transition does present new opportunities for more control with regards to quality assurance, as well as enhancements to the structure and provision of these services. In response to changes to DSAs, the University of Cambridge set up a Reasonable Adjustments Fund (RAF) to accommodate band 1 and 2 non-medical tasks, as well as the provision of specialist mentoring and study skills (Gov, 2017). Cambridge's approach was used as a case study in the 2017 Department of Education guidance document, for its strategic response to changes to the provision of DSAs. The guidance document states, "the fund will allow for flexibility and innovation in the provision of support with group and workshop support for disabled students being added to individual support provision, something which has been requested in feedback from disabled students at Cambridge" (2017, p.38).

	Non-Medical Help Task
BAND 1: Support Assistants	• Practical Support Assistant • Library Support Assistant • Reader • Scribe • Workshop/Laboratory Assistant • Sighted Guide • Proof Reader
BAND 2: Enhanced Support Assistants	• Study Assistant • Examination Support Worker • Manual Notetaker
BAND 3: Specialist Enabling Support	• Communication Support Worker • Electronic Notetaker • Specialist Transcription Services • Mobility Trainer
BAND 4: Specialist Access and Learning Facilitators	• Specialist Mentor • Specialist One to One Study Skills Support • BSL Interpreter • Language Support Tutor for deaf students • Assistive Technology Trainer

*Bands of DSA non-medical tasks

Under the 2010 Equality Act, HEPs are required to make reasonable adjustments where required, to support disabled students in their studies and to alleviate any disadvantage they may face. By law, this duty is *anticipatory*, which means large scale institutional support structures are required and ad hoc adjustments alone are no longer a satisfactory response to supporting disabled students in higher education. There is a need for institutions to implement robust, strategic support systems, which cater for the increasing numbers of disabled students entering higher education and decrease the pressure placed on disability services. As Silver and colleagues write, "if this approach becomes part of the institution's instructional methodologies, students with disabilities in higher education will no longer need to rely as heavily on support systems that are secondary to the primary instructional programs" (1998, p.47). Broad institutional change which improves the quality of learning for disabled students, will improve attainment, retention and student satisfaction rates for this group of students, and will facilitate the creation of a more diverse student body (Hocking, 2010).

Drivers for Change

This report provides an overview of sector responses to calls for inclusive teaching and learning strategies and makes recommendations as to how Cambridge can best respond to the drivers detailed below.

External Drivers	Key Features
1) Government policy	• January 2017 DoE inclusive teaching guidance • Cuts to DSA 2014-17 • Commitment to WP (Johnson, 2015) • OFFA
2) Funding priorities	• WP strategy • HEFCE (HEFCE, 2015; HEFCE, 2016) • TEF • National Collaborative Outreach Program NCOP • League tables
3) Equality legislation	• Public Equality duty/SENDA/DDA • Equality Act 2010
4) Quality assurance	• Institutional audit • QAA codes of practice • UK Professional Standards Framework • HEA • DSA-QAG • QAF • SFE guidance on QA
5) National student survey	• Impact on TEF • Student satisfaction • Student recruitment
Internal Drivers at the University of Cambridge	**Key Features**
1) Mission and strategy	• Equal access to education • The widest possible student access to the University
2) Policy	• Equality and diversity • Code of Practice: Reasonable Adjustments for Disabled Students • Digital Education Strategy (including lecture capture pilot) • Learning and Teaching Strategy
3) Student retention	• Students increasingly viewing the university experience as a consumer product (Woodall, 2014) • Increase in disabled student population at the University of Cambridge from 4% in 2008 to 12% in 2016. • Transition • Student experience • Student support • Student finances
4) Quality Assurance	• Quality of learning, teaching and assessment • Quality of graduates/employment rates
5) Developing professional practice	• Requirements from education authorities • PG Cert- inclusive practice • Training staff on diversity and disability

As well as the external drivers for change described above, the Disability Resource Centre at the University of Cambridge experiences a year on year increase in service demand. There has been an overall increase in the disabled student population at the university (declared disabilities) from 4% of the student body in 2008 to 12% in 2016 (University of Cambridge, 2016). This increase is a positive indication that any perceived stigma around the disclosure of disability is diminishing and the university is moving towards a more diverse student community. However, the increase in service demand on the Disability Resource Centre for individual adjustments is unsustainable without broader changes to teaching and learning practices taking place in academic faculties and departments across the university. The Disability Resource Centre 2016 Annual Report contends, "as numbers of students disclosing disabilities increase, universities are required to think more closely about how curriculum design and teaching and learning practice can become more inclusive to reduce the need to make a growing number of individual adjustments" (2016, p.5). By moving away from resource intensive individual needs-based adjustments for disabled students, the Disability Resource Centre can work in closer collaboration with faculties and departments on developing inclusive teaching and learning policy and practice.

3. Inclusive Pedagogy

Social Model vs. Medical Model of Disability

The social model of disability is utilised as a useful tool for explaining the challenges presented to disabled people by nature of their external environment, as well as a practical strategy designed to better include all social groups in society, regardless of difference (Shakespeare, 2006). It theorises disability as a product of the barriers individuals face as a result of environmental factors rather than situating the problem with the individual. Another way of conceiving of disability is according to the 'medical model'. The medical model presents disability as the lack of ability to perform activities, as a result of a range of impairments caused by a variety of biological factors. However, unlike the social model, the medical model on its own does not sufficiently interact with the social and environmental factors that present barriers to people with a disability. The World Health Organisation (WHO) offers the following definitions of 'impairment' and 'disability', which are exemplary of a medical model approach:

Impairment: "In the context of health experience, an impairment is any loss or abnormality of psychological, physiological, or anatomical structure or function."

Disability: "In the context of health experience, a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being." (WHO, 1980)

Inclusive teaching and learning theory is reinforced by the social model, which advocates for a wholesale adoption of practices that create an environment which allows all students equal

opportunity to succeed. By engaging with teaching methods that are accessible to all students, disabled students or students who have different learning styles will no longer need to be singled out in their peer group and offered individual support (Smith, 2010). For example, using lecture capture or universalising permission to record lectures for personal use, means that students with specific learning difficulties who find it challenging to process large chunks of information over a short period of time, no longer need to ask permission to produce their own recordings. In this sense, as well as reducing the time and resources spent on individual adjustments, inclusive teaching performs the function of raising self-esteem for disabled students. This is achieved by reinforcing the notion that the problems posed by disability are not caused by nature of their difference, but how the world around them is designed.

Inclusive Teaching and Learning

Professor Christine Hockings provides a useful definition of inclusive teaching and learning, she posits, "inclusive learning and teaching in higher education refers to the ways in which pedagogy, curricula and assessment are designed and delivered to engage students in learning that is meaningful, relevant and accessible to all" (2010, p.1). This definition is useful when thinking broadly about the ethos of inclusion, however Thomas and May's HEA guidance on inclusive teaching and learning emphasises the importance of developing a definition of inclusion that is specific to one's own institution. Thomas and May contend, "some institutional teams do not use an explicit definition of inclusive learning and teaching and do not engage in a process to evolve a definition. This is perhaps worrying as it suggests that they are working towards an objective that is not defined, and therefore is more difficult to achieve; that is likely to mean different, and potentially contradictory, things to different audiences; and impact cannot be measured" (2010, p.18). In this sense, it is important to define an institution-specific understanding of inclusive teaching and learning through engagement with staff across the university. For the purpose of this research, this report utilises Hockings' working definition of inclusive teaching and learning.

Inclusive teaching and learning is beneficial to a diverse range of students with a variety of needs and challenges. This list includes and is not limited to, students with the following dimensions of diversity:

Diversity Dimension	Example
Educational	Level/type of entry qualifications; skills; ability; knowledge; educational experience; life and work experience; learning approaches.
Dispositional	Identity; self-esteem; confidence; motivation; aspirations; preferences; attitudes; assumptions; beliefs; emotional intelligence; maturity; learning styles; perspectives; interests; self-awareness; gender; sexuality.
Circumstantial	Age; disability; paid/voluntary employment; caring responsibilities; geographical location; access to IT and transport services; flexibility; time available; entitlements; financial background and means; marital status.
Cultural	Language; values; cultural capital; religion and belief; country of origin/residence; ethnicity/race; social background.

*(Thomas & May, 2010)

In this sense, students are an increasingly diverse population with different experiences and abilities, and this affects their learning in different ways. Not all aspects of diversity are visible, and due to the prevailing stigmas that surround many of the above dimensions, students are often not willing to draw attention to areas of difference that might be affecting their learning (Trammel 2009). Consequently, the adoption of inclusive practice eliminates barriers to education for students whose learning outcomes are being adversely affected, and removes the need for students to single themselves out and ask for adjustments. The principles behind inclusive teaching and learning are to accommodate diversity within a given student population, and ensure educational equity. This report focusses on disabled students, due to the changes to DSAs mentioned previously, however the resulting recommendations are based upon inclusive principles which stand to benefit all students.

Universal Design

In terms of its grounding in academic pedagogy, inclusive teaching and learning follows the principles of 'universal design'. Universal Design in higher education is a set of principles that strives to give all individuals equal opportunity to learn. Universal Design for Learning (UDL) provides an outline for adopting and providing teaching methods, materials, and assessments that is accessible to all. In reference to this, Pisha and Coyne write, "what has been done in the physical world of architecture can also be accomplished in the more abstract world of knowledge" (2001, p.203).

As has been mentioned previously, although disabled students are accessing higher education in record numbers, when they arrive at university they face numerous barriers to inclusion, particularly within teaching spaces. As Konur writes, "as the number of disabled students in higher education has increased in recent years, teaching them in compliance with public policy while maintaining academic standards has become a crucial issue. The access of disabled students to programs and to the curriculum are two separate but inter-linked features of such policies" (2006, p.351). Universal Design in teaching and learning seeks to address the challenges to inclusion for disabled students within an academic context, as it provides a learning experience that facilitates the educational development for a range of social groups. This can be achieved in the following aspects of higher education:

> **Provide multiple means of engagement**: Outline the learning goals and objectives, the relevance of the content, and any opportunities for choice within the course.

> **Provide multiple means of action and expression**: Use the syllabus to communicate regular routines to establish expectations, outline the timing and format of assessments, and offer resources for the management of information.

> **Provide multiple means of representation**: Be explicit about the ways in which students can access content (e.g., textbook, slides, course website, videos) where to find background information and multiple examples.

This report advocates for the following strategies to be core elements of inclusive practice at the University of Cambridge. These core practices align with those outlined in the "Code of Practice: Reasonable Adjustments for Disabled Students":

- Ensuring course materials are available online in accessible formats a sufficient amount of time (minimum one week) before the lecture/class.
- Providing students with directed reading lists, where readings are organised in terms of "essential" and "additional" reading.
- Using lecture capture to record lectures and post online for students to use OR allow students to record lectures/classes for personal use.

(University of Cambridge, 2017)

<u>Affirmative Model of Disability</u>

In fact, truly inclusive teaching and learning goes a step beyond the social model of disability and draws on the affirmative model. The Department for Education's 2017 guidance document on inclusive teaching and learning references French and Swain's 2000 article on the affirmative model of disability, which is defined as, "a non-tragic view of disability and impairment which encompasses positive social identities, both individual and collective, for disabled people grounded in the benefits of lifestyle and life experience of being impaired and disabled" (2000, p.569). In this sense, the affirmative model strips disability of its stigma and negative associations and promotes a positive view of difference. With regards to inclusive teaching and learning, incorporating the affirmative model into recommendations to HEPs reinforces the notion that disability and all aspects of difference should be both celebrated and accommodated for.

4. Common Concerns around Inclusive Teaching and Learning

As outlined above, the benefits of inclusive teaching and learning extend to all students, regardless of disability, gender, ethnicity, socio-economic background or sexuality. Inclusive methods, while sometimes unusual and innovative, are synonymous with what should be considered 'good practice'. For example, providing students with course materials a sufficient amount of time before their class/lecture, allows all students the opportunity to prepare and familiarise themselves with the material. For a multitude of reasons, for many disabled students this practice is necessary to equitable learning however, ultimately, these methods benefit all.

Undeniably, very few institutions can claim to be wholly inclusive in their teaching and learning practice. This is in part due to the steady transitioning from individual student support to a universal design model of teaching, which takes time to fully embed across a university. However, there is also a narrative within pedagogical scholarship that suggests academic resistance to the inclusive teaching and learning agenda is rooted in a set of fears and anxieties (Brink, 2009; Fuller et

al, 2004). In the Department of Education's guidance document on inclusive teaching and learning, it is stated HEPs are encouraged to "enable staff to challenge assumptions about the benefits of the status quo ('myth busting')" (2017, p.19). In the spirit of "myth busting", this section will address the most common fears and perceptions about inclusive teaching and learning voiced by academic staff, and provide an explanation as to why these are simply perceived barriers to inclusion and lack an evidence base.

"Standards will drop"

A common reported fear, is that admitting large numbers of disabled students to university and providing an education that is inclusive, will cause academic standards to drop or will result in less rigorous educational standards (Brink, 2009). Brink's study found that 25.3% of academics surveyed either "agreed" or "strongly agreed" that inclusive practice would mean standards would drop (2009, p.218).

A context in which this argument is frequently cited, is in discussions surrounding alternative modes of assessment. The attitude that frequently pervades is that 3 hour written examinations are the single best and most revealing method by which one can assess a student's knowledge, understanding and ability. However, this view is arguably flawed. A single style of examination, for example a 3 hour timed written exam, is only justifiable as the only appropriate mode of assessment if the competency standard being measured is the ability to generate information without reference in a finite amount of time. In this respect, the University of Cambridge Code of Practice states, "While there is no duty to make reasonable adjustments to genuine competence standards, the duty does apply to the assessment of that standard: the Law distinguishes between requiring students to demonstrate they have reached a required standard, and the method by which this is assessed" (2017, section 17).

There are select courses and situations where speed and generation of knowledge within a specific timeframe are a necessary competency standard (such as certain aspects of medicine), however this is certainly not applicable to all subjects. In this sense, it is essential to distinguish between maintaining high standards of ability, and only rewarding students who are able to demonstrate their knowledge in a specific way that is irrelevant to the course's competency standards (University of Cambridge, 2017). Thus, in order to ensure academic standards remain high, students must be assessed according to their ability and learning outcomes, rather than arbitrary measures that do not correspond to the true competency framework set out by the course. This may require further consideration on the part of paper conveners, as to the most appropriate method of assessment.

"This is more work for academics who are already limited in terms of time and resources"

Research demonstrates that academics often describe their workload as 'unmanageable' (Kinman and Jones, 2004). In this context, inclusive teaching and learning is often perceived to be a further drain on their already overstretched time and resources. In fact, the opposite is the case. By

dispensing with ad hoc adjustments for individual students and embedding inclusive strategies to benefit all students, staff will no longer have to spend time and resources catering for the needs of often multiple individuals who require support. Moreover, studies suggest that by adopting an inclusive approach, learning outcomes for the entire group will improve, regardless of disability (Jordan et al, 2009).

For example, rather than sending lecture slides to individual students with declared disabilities ahead of the lecture or class, by routinely uploading lecture materials online for all students to access, these resources will form a repository which can be used year after year and adapted alongside changes to the course structure or content. Moreover, all students can get a full overview of the course and prepare for lectures in advance, which is likely to improve learning outcomes (Hocking, 2010). In this sense, making wholesale changes to the dissemination of course information negates the need for individual needs-based adjustments, which saves time and resources.

Brink's 2009 study on academic perceptions of inclusive practices contends that, if successful, inclusive teaching and learning will, "reduce the amount of time spent making individual adjustments for specific students" (2009, p.221). This study also hypothesises that the misconception that inclusive teaching drains resources, largely stems from a lack of understanding with regards to what inclusive teaching and learning actually is. Similarly, the Department of Education's 2017 guidance document writes, "a focus on inclusive practice in the design and delivery of teaching methods has the potential to significantly reduce the costs and time required to make individual adjustments" (2017, p.24). In light of this, the study recommends further engagement with academic staff to contextualise inclusivity within practical teaching solutions, such as those detailed in the case studies presented in this report (Brink, 2009).

"Inclusive teaching is spoon-feeding students"

This common concern often manifests with reference to prioritised reading lists and the provision of past papers and extensive revision materials. Academic staff question whether guiding learning and making the course trajectory clear for students, makes courses easier and removes the element of independent learning necessary for higher education study. In part, this is true. It is easier for students to learn when they have a clearer idea of what they are supposed to be learning and how this is likely to be assessed. However, this simply allows all students to approach the material on a level playing field. This does not enhance the student's inherent aptitude, ability to construct an argument, or analytic skills. It simply gives students equal access to the materials and the necessary tools to better understand what is expected of them, which is often challenging for many disabled students.

"'Audit Culture' is ruining Academic Freedom"

As has been previously discussed, the HE sector is experiencing a number of external pressures from government policies such as the DSAs changes, TEF, HEFCE and OFFA priorities and the metric

within the National Student Survey. On one hand, this forces universities to be more accountable to their students who, since 2012, have been paying up to (and now above) £9,000 a year for their studies. This is understandably changing the culture within universities, as students increasingly view themselves as a consumer group and expect high quality teaching in exchange for the increasing fees (Foskett et al, 2006; Woodall, 2014).

For many academics, the strengthening of quality controls with regards to teaching and learning, represent a change in academic culture and a challenge to professional autonomy (Strathern, 2000). Evans postulates that regulatory frameworks within HE are "producing fear and little else" and "killing thinking" (2004, p.63). Within this HE climate, inclusive strategies are often viewed as an additional bureaucratic hurdle over which academics are required to jump. This perception is only reinforced by the fact that the drivers for inclusive teaching and learning stem from the government and from regulatory funding bodies. However, when one separates the ethics guiding inclusive teaching from the mandating bodies and the financial implications for HEPs, the premise of this agenda is principally about giving all individuals equal right to education. Moreover, Fuller and colleagues write, "the extensive use of equality audit appears to have had some success in improving the position of disabled students" (2008, p.26). In this sense, given the current climate of audit culture within the sector, it is important to reaffirm the guiding the principles of equality in the inclusive education agenda, and their importance for students with disabilities.

"Inclusivity is the responsibility of student services and welfare"

A challenge faced by many HEPs in relation to promoting inclusive teaching and learning, is that the responsibility for embedding these changes tend to sit within student services. However, the solutions reside within the remit of academic staff. Therefore, in order to enact change, welfare and support services are required to intervene in matters relating to teaching. This can raise a number of structural and communication issues between academic and support staff. However, ultimately inclusivity and equality is the responsibility of all university staff, mandated by the 2010 Equality Act, and a core value of higher education more broadly. Therefore, greater collaboration is needed between support services, such as the Disability Resource Centre, and the Centre for Teaching and Learning, and academic faculties and departments to achieve learning parity.

Research on the effectiveness of Universal Design in teaching and learning demonstrates that, "faculty feel that the more resources, guidance, and support they receive from support services, the more they are willing to accommodate students with disabilities" (Silver et al, 1998, p.50). In this sense, it is imperative that support staff produce evidenced guidance for academics in order to instigate change (Aborn, 2003). This report seeks to contribute to this demand by defining the parameters of inclusive teaching and learning and providing an overview of the ways in which institutions can embed these practices.

5. Methodology

Sample Group

Seven UK higher education institutions participated in this research project. These institutions included:

- University of Sheffield
- Sheffield Hallam University
- University of Oxford
- University of Birmingham
- Queen Mary University
- Kings College London
- University of Plymouth

The sample group above was chosen to reveal perspectives from a range of different institutions on inclusive teaching and learning strategies. The above sample includes both Russell Group/non-Russell Group universities, collegiate/non-collegiate universities, pre-1992/post-1992 Universities, and universities in a range of geographical areas in England. The sample does not include universities in Wales, Scotland or Northern Ireland, due to travel and budget constraints. One limitation of the sample group is that all the above universities are based in urban or town environments and all are relatively large institutions. However, as this report is first and foremost being written as a guide for the University of Cambridge, this was not perceived to be problematic.

The purpose of this report is to identify successful strategies that embed inclusive teaching and learning within higher education institutions. It is worth noting that success is often highly dependent on the individual structure and culture of a given institution, and there is no 'one size fits all' solution to this problem. It is also important to clarify that inclusivity means different things for different student demographics. For example, inclusive teaching and learning for a HEP like Birkbeck, with a high population of mature students, will mean something different for a traditional undergraduate institution such as the University of Sheffield. In this sense, knowing the needs and concerns of an institution's stakeholders is key to successfully delivering an inclusive teaching and learning environment. With this in mind, the following section seeks to provide an overview of inclusive teaching and learning strategies currently being adopted in the HE sector.

Semi-Structured Interviews

A key staff member with experience or responsibility for inclusive teaching and learning was interviewed from each participating institution. For ethical reasons, each interview participant was notified of the purpose of the interview and the proposed content of this report. Interviews lasted 1-2 hours and were semi structured. Please see appendix A for the standardised questions asked. The standardised questions were disseminated before each interview to give staff an overview of the kind of information required. These questions were also used as prompts during the interviews,

in order to focus the interview process and provide a structure. As well as standardised questions, institutions were asked about the success of specific projects or research relating to inclusion, where appropriate.

Semi-structured interview was chosen as a research method due to the capability to guide the interview process, while allowing for deviations when participants have relevant information in an area not explicitly mentioned in the standardised questions (Rabionet, 2011). Open-ended questions allowed participants to take the conversation in a direction that was relevant to inclusive teaching and learning in their institution (Drever, 1995). This meant answers to some questions were longer than others, however this was not considered to be problematic, as some questions alluded to strategies that were not adopted by other institutions. Moreover, the interview process was not designed to elicit formulaic responses which could fit within a table or produce quantitative data. Interview responses were analysed thematically, in order to allow themes to emerge according to importance and relevance.

Thematic Analysis

Thematic analysis was chosen as the method of critically evaluating the data from the semi-structured interviews. This is because, as has been previously mentioned, respondents gave the standardised questions variant levels of importance/relevance to inclusive teaching and learning in their institution. The purpose of thematic analysis is to find patterns within data with open ended responses which often divert from the original question (Boyatzis, 1998). A thematic code was developed to make sense of the multiple interviews conducted, and this was then used to track themes that were present across the sample.

University of Cambridge

As well as exploring inclusive teaching and learning strategies in other HEPs, research was conducted into the current status of inclusive teaching and learning practices at the University of Cambridge. This research project was hosted by the University's Disability Resource Centre, who have contributed to this report by sharing their extensive knowledge on the history of inclusion at the university. The Head of the Disability Resource Centre and the Disability Advisers in particular, who engage regularly with disabled students at the university as well as staff, were interviewed individually in relation to common barriers to inclusion faced by students.

In addition to interviews with members of the Disability Resource Centre, a wide range of stakeholders from within the university were contacted to offer feedback on this research project. This group includes and is not limited to: Widening Participation, Equality and Diversity, University Information Services Deputy Director, Disability Liaison Officers, Lecture Capture Project Officer, College Tutors, academics from across the school, undergraduate and postgraduate students (disabled and non-disabled) as well as staff members from the Cambridge Centre for Teaching and Learning. In addition to targeting specific individuals with knowledge of inclusive teaching at the

university, the research project was advertised more generally to students and staff, in order to ensure individuals had the opportunity to input if they wished.

6. Findings

<u>Limitations and Considerations</u>

Before entering into a discussion on findings from the thematic analysis, it is worth noting that there are limitations with regards to the equivalence or transferability of the data collected from each institution. For example, the institution-specific nomenclature used to describe entities such as "disability services" varies from university to university. In some instances this is not problematic; however in many cases one cannot assume that the roles and responsibilities in one area of the university are the same as their equivalent at another university. Moreover, when discussing policies on inclusive teaching and learning, it is important to bear in mind that these may vary considerably in terms of content, in order to reflect the individual university's priorities and student demographic. This being said, a number of strong themes emerged from the data that illustrate the shared barriers to inclusive teaching and learning experienced more widely in the sector and the interview process revealed a great deal of commonality with regards to successful and unsuccessful strategies for inclusion.

<u>Finding 1: The Power of Case Studies</u>

When discussing successful strategies for embedding inclusive teaching and learning in higher education, the use of case studies emerged as a resoundingly effective method of encouraging staff to adopt the inclusivity agenda. Interview participants were unanimous in their appraisal of case studies as a valuable method of disseminating information regarding good inclusive practice (Siggelkow, 2007). In support of this claim, an unpublished report on inclusive teaching and learning produced by the University of Oxford (referenced to in an interview with an Oxford member of staff) found that academic staff voted case studies as the most effective way to communicate ideas around inclusive practice. Aside from demonstrating how inclusion can be practically implemented in higher education, case studies are also frequently used within pedagogical scholarship to evidence good practice in a variety of other areas within teaching (Brice and Miller, 2000; Gudmundsdottir, 1990; Mastropieri, 2005). This suggests that case studies are an established means of communicating ideas to academic staff, by demonstrating examples of impactful practice.

The finding that case studies are an effective method of communicating good inclusive practice is a powerful one. Those responsible for embedding inclusive practice for disabled students within their institution are charged with disseminating "non-essential" information to a large staff community and must ensure that this material is understood and afterwards adopted by those who are responsible for teaching. With limited time and resources to perform this task, those working on the inclusivity agenda are required to be strategic about how to inform and educate their colleagues. Case studies were reported to be a successful mode of communication due to the use of practical examples of inclusion, which enable staff to contextualise the ethos of inclusive

teaching within a real life situation. Interview participants often mentioned that "inclusion", when not properly defined, is a broad term that can be interpreted in a number of ways, particularly with regards to its practical application. In this sense, case studies enable academic staff to envisage how they might translate inclusive practice into their own teaching.

The finding that case studies are a popular and effective method of communicating inclusive practice to staff members is a valuable outcome of this report, as fostering meaningful engagements with staff members is a key challenge to successfully embedding inclusive practice within HEPs. This finding can be incorporated within the University of Cambridge's strategic approach to inclusive teaching and learning and will be reflected in the recommendations that result from this report.

Finding 2: Collaboration as a Method of Embedding Inclusion

As has been previously mentioned, HEPs vary in terms of operational structure, which effects who holds the core responsibility for the inclusivity agenda and who is involved in its implementation. For most universities, with one notable exception, the responsibility for inclusive teaching and learning unofficially resided with the disability services, despite being a government mandated action for HEPs as a whole. Some of the key challenges to embedding inclusive practice in higher education institutions is breaking down silos and facilitating collaborative partnerships with other areas of the university, who are crucial to the success of this mission, such as academic faculties and those working in teaching and learning. The finding that intra-institutional collaboration is important to the inclusivity agenda, is supported by the Department of Education 2017 guidance document, which listed inadequate "support to engage staff across the HE provider" and failed "engagement with the concept across the University" to be some of the key barriers to the successful implementation of inclusive practice (Gov, 2017). These themes were a frequent point of discussion during interviews with participating institutions, and those who had fostered productive engagements across the institution were objectively making greater progress with the inclusivity agenda than those who were having difficultly developing a sense of shared responsibility.

The core of this issue is situated in the difficulty faced by disability services, who are perceived to sit within student welfare, in intervening in the domain of teaching and learning, which is perceived to be the exclusive remit of academic staff. Despite disability services staff being well versed on issues of inclusion within teaching (due to their high level of contact with the students themselves, and that often disability staff hold professional teaching qualifications) communicating this student feedback to those who deliver teaching can be extremely challenging. In this sense, greater links between disability services, central bodies responsible for teaching and learning, schools and faculties, senior leadership and the student body, must be strengthened. The responsibility for inclusive teaching and learning must be devolved to multiple areas in order to be successfully embedded within policy, university culture, teaching practice and evaluation measures. In view of this, ideas around what inclusivity means for an individual institution must be clearly communicated to academic and professional support staff, and responsibilities within the inclusive teaching and learning strategy must be shared by the university as a whole.

As has been previously discussed, inclusive teaching benefits a diverse range of students, including those with a disability. In light of this, it is also worth maintaining strong links with areas of the university responsible for widening participation, equality and diversity, The Race Charter/Athena Swan and learning parity with regards to gender.

Finding 3: Technology is Transformative

The use of technology to support inclusive teaching and learning was reported by all participating universities to be a successful method of embedding inclusion. Technology has the power to transform the learning experience for disabled students, who may have existing problems with accessibility of materials, library use, physical access and assessments. Below is a list of technologies that participating universities testified to be integral to inclusive practice at their institution:

6) **Lecture Capture**: This technology was reported to be the most popular method of inclusive teaching. Although many institutions did disclose that this technology has been met with varying levels of resistance from academic staff, student feedback on the provision of online lecture recordings was said to be overwhelmingly positive. This will be discussed in more detail in the sections on case studies and recommendations.

7) **Use of Teaching and Learning Platforms (Moodle)**: The successful utilisation of learning platforms was reported to be a key step in embedding inclusive teaching and learning. Ensuring academic staff properly make use of these sites and upload learning materials online removes barriers to learning in circumstances when students are unable to access the library or need additional time to review course material.

8) **Assistive Technologies for Academics**: Downloadable assistive applications that help academics convert their lecture slides or supervision notes into accessible formats, were said to increase staff efficiency and contribute to improved learning outcomes for disabled students.

9) **Assistive Technologies for Students**: Facilitating student wide access to assistive technologies such as MindView and ClaroRead are incredibly powerful learning tools for students with a disability and those without.

10) **Computer-based Assessments**: Increasingly, institutions are using computers for written examinations. The traditional assessment model based on three hour written exams has been modified to reflect the needs of the current cohort, who are often more accustomed to typing than writing. This optional mode of assessment is particularly beneficial for many students with disabilities, such as dyspraxia, who find writing by hand for long periods of time to be challenging. By offering this mode of assessment to the whole cohort, disabled students are no longer singled out. The University of Cambridge are currently running a pilot of computer-based assessments, the outcomes of which will be available in July 2017.

11) **Online Resources for Staff**: All institutions who participated in this study have some form of online material for staff on inclusion, designed to provide guidance on how to create a more inclusive teaching and learning environment. These resources were reported to be useful for

referencing, however the effectiveness of these resources in embedding inclusive practices was found to be negligible, evidencing a demand for more engaging and effective strategies of communication.

Technology has the power to transform the learning outcomes and university experience of disabled students. As Ahmad writes, "effective technology integration can help provide all learners with the ability to access the general education curriculum, offering them multiple means to complete their work with greater ease and independence" (2015, p.62). It is well evidenced that, when used appropriately, technology and online learning can remove a great deal of barriers to inclusion for a wide range of students, with a diverse set of needs (Garrison and Kanuka, 2004; Resta and Laferrière, 2007; Taleb and Sohrabi, 2012). For example, utilising online platforms such as Moodle to provide course material and online reading lists could be beneficial to students who are distance learners, as well as students with care responsibilities who are unable to use the library as often as others. With regards to disability, for dyslexic students, having online materials available a sufficient amount of time before a lecture or class enables them to do their reading in advance, which allows them to suitably prepare and also alleviates stress. For a diverse student body, flexibility of learning is vital to academic success and managing the pressure of high workloads. Technology such as Moodle and lecture capture is able to facilitate this flexible learning and empower students to overcome issues that may arise due to disability, illness, care responsibilities and so on.

Finding 4: Senior Leadership as a Driver for Change

Senior Leadership buy-in and support is essential to embedding inclusive teaching and learning within an institution and creating a university culture of acceptance and diversity. The Department of Education 2017 guidance document on inclusive teaching and learning emphasises the significant role senior leadership plays in the successful adoption of the inclusive agenda. This document states, "the pace of progress will be determined by the level of engagement and leadership provided by senior teams. They must drive and deliver change to address the many and varied extrinsic and intrinsic barriers faced" (2017, p.17). Moreover, the HEA document on inclusive teaching and learning, written by Thomas and May, contains guidance on securing senior management engagement, highlighting the importance of this step to successfully developing a culture of institutional inclusion. As this paper indicates, "it is widely recognised that senior manager leadership and support is crucial to institutional change, especially in relation to inclusive learning and teaching where it may be necessary to change institutional policies, structures and processes, and the institutional culture"(2010, p.33).

With the exception of two universities, it was reported that senior leadership played a limited role in the inclusivity agenda among participating institutions. This being said, many interview participants advocated for senior members of staff to accept the duty of embedding inclusive practice within their remit. Within most institutions, the responsibility for inclusive teaching and learning is that of the Pro Vice Chancellor for Education (or equivalent), though the degree to which the inclusivity agenda was actively promoted by these staff members varied considerably.

A successful strategy used by participating HEPs to secure senior leadership buy-in, was the creation of inclusive teaching and learning steering groups/committees/working groups. These groups are constituted by; relevant members of senior management, the disability service head and advisers, members of the teaching and learning team, student representatives, faculty heads and other relevant academic members of staff. It was indicated that where these groups existed, meaningful change in terms of communication, strategy and policy occurred. This point is also reinforced by Finding 2 on promoting widespread institutional change by breaking down silos and embedding inclusion across the university. Moreover, by engaging with multiple groups of stakeholders at once, with diverse perspectives on inclusion at the university, these steering groups/committees/working groups were found to be successful in working through contentious points and incorporating multiple perspectives into the strategy. I will further reflect on the potential demand for collective action at University of Cambridge in the recommendations section of this report.

Finding 5: Inclusive Strategy, Policy and Procedure

All participating institutions have some form of policy, guidance, code of practice or framework in place, to promote a consistent approach to providing support for students with disabilities. These documents can act as reference points for academics and often convey information with regards to university compliance with the 2010 Equality Act and the delivery of reasonable adjustments. At Cambridge, this document is called "Code of Practice: Reasonable Adjustments for disabled students" (University of Cambridge, 2017). These documents are invaluable resources for setting out the institution's position on inclusive teaching and learning, however as they relate specifically to teaching disabled students and academic staff are not required to read them, they are unlikely to be viewed by all academic staff and their impact on teaching is seldom evaluated. Therefore, it is important to embed guidance on inclusive teaching and learning in alternative formalised areas of University policy and procedure.

Adding inclusive measures to policies relating to faculties, schools, departments, colleges and so on, will communicate inclusive practice to a wider range of stakeholders and embed the inclusive ethos within the institutions' language and values. This is an integral part of incorporating inclusive practice within an institutions processes and procedures. The QAA Code of Practice for Disabled Students states, "senior managers, including those at the highest levels, lead their institution's development of inclusive policy and practice in relation to the enhancement of disabled students' experience across the institution" (2010, p.14). Moreover, at the 2017 NADP conference on "Inclusive Course Design and Delivery" in London, Professor Sue Rigby spoke of the various challenges and opportunities with regards to inclusive teaching and learning. She noted that cultural change within the institution must be developed in tandem with embedding inclusion within university policy and procedure.

An example of a procedure in which inclusivity measures can be incorporated, is academic promotion pathways. Some universities have already adopted inclusivity criterion within this procedure. In the description of teaching criteria eligible for promotion, "engaging in inclusive

teaching practice" is included as an indicator that academics can use to justify their application for promotion. In order for academics to meet the criteria for this indicator, they would need to demonstrate how their teaching is inclusive and in what ways this was effective. This is a clear example of how inclusion can become a feature of university procedure, thus further demonstrating the importance of inclusion to the institutional ethos.

Embedding inclusive teaching and learning within strategy is crucial in broadening the scope of engagement and influencing university culture. For example, the University of Plymouth demonstrates their commitment to inclusion in their 2016-2020 University Strategy, which states, "with a truly global outlook, we are an inclusive and inspiring university community", as well as their Teaching, Learning and Student Experience Strategy, where academic staff are required to "develop inclusive learning and assessment opportunities that meet the needs of diverse learners through flexible learning and assessment options" (University of Plymouth; 2013, 2016). Rather than isolating inclusivity within documentation relating specifically to disabled students, prioritising inclusivity as core aspect of a university mission and values within strategy, demonstrates an institution-wide commitment to improving university life for disabled students. It was evident from interviews with key contacts at the University of Plymouth, including the Pro Vice Chancellor of Teaching and Learning, that embedding inclusivity within strategy documents has been highly persuasive in terms of influencing university culture, among academic staff in particular. It was recounted that making "inclusivity" a regular feature of the institution's language is a powerful catalyst for change.

Finding 6: Utilising Student Data in Strategy and Evaluation

As has been discussed, universities vary considerably in terms of structure, organisation and student demographic. Thus, priorities for one institution are not necessarily priorities for another. For example, some universities who participated in this study had large populations of BME students or part-time students. Interview participants emphasised the importance of knowing and understanding the demographic characteristics of your students is integral to meeting their specific needs and delivering a high quality university experience (Hamilton et al, 2009). They also noted that student data is fundamental to being strategic about inclusivity. Student data can include anything from assessment scores, student histories or demographic information. This data can be used to make changes with regards to the kinds of courses offered and their mode of delivery e.g. blended learning, flipped classroom, coursework based assessments, MOOCs. Data can also be used to evaluate the effectiveness of certain teaching practices and equality of learning outcomes for disabled and non-disabled students (Kane et al, 2011). Student surveys aimed specifically at disabled students also contain valuable information regarding how inclusivity could best be achieved at your institution. It is also useful to consider how data can be used as an evaluation tool to measure the successes of your institution's strategy with regards to inclusion (JISC, 2017).

7. Case Studies

The use of Visualisers in Maths: Julia Gog

<u>Background and Drivers</u>

At the University of Cambridge, maths lectures have traditionally been given using blackboards or overhead projectors. This method of teaching is satisfactory for some students, however it does present issues for students with visual impairments, and yellow chalk is often requested as it allows for a more favourable contrast. Another emergent issue with blackboards is that the board writing is usually erased shortly after (or during) the lecture, meaning that students who are unable to take notes at the necessary pace may miss out on important information. Moreover, blackboard notes are rarely converted into online resources for students to use later.

Visualisers are currently being used in maths lectures at Cambridge as an inclusive teaching and learning strategy. Visualisers are modern OHPs, which allow the teacher to write onto a sheet which is recorded and projected up onto a large screen at the front of the lecture hall. The visualiser allows students to watch notes being created and gives a good visual representation of formula and equations. The use of coloured pens allows lecturers to colour code their notes and create a logical structure for students to follow. These visualiser lecture notes can also be uploaded to Moodle, where students can pick up any information they may have missed. The visualiser also has the capacity to audio record lectures, which is a function that can be used where appropriate.

<u>Inclusive Teaching and Learning</u>

The benefits of visualisers to inclusion in teaching and learning are numerous. The most obvious advantage to using a visualiser in maths lectures is the creation of lecture notes for students to refer to whenever needed. This is a fantastic resource for students to use for revision or if they've missed a lecture. The fact that these notes are colour coded also means the lecturer can code important information, formulae and definitions, making them easier to reference to during revision.

<u>Lecturer Feedback</u>

Dr Julia Gog, a lecturer in the Faculty of Mathematics, commented the following:

"I have used blackboards (only for a few lectures) and OHPs (for a full 24 lecture course). I prefer visualisers by far. The simplicity of pen and paper means that I can focus on the content, on what I'm saying, and unlike blackboards (looking wrong way) and OHPs (staring into the light), I can stay in contact with whether the audience is following and engaged. Preparation is super easy: I can draft the entire lecture using normal A4 paper and thereby plan how it will be laid out on the visualiser (which uses, after all, normal A4 paper). Added bonus is that as the notes given in lectures

are there on A4 paper, I can take those and go via a scan-to-email printer, and then put the notes online within minutes of the lecture ending.

There were some snags initially, such as being aware of which bit of the paper is visible, how to move the paper to work across page breaks, and how to ensure the visualiser's focus sticks to the paper depth (and doesn't skip to my hand if it is closer), but that was all easy to adapt to.

I would say my handwriting is naturally horrible, so I have to pay attention to keep it readable while teaching. But visualiser has made that far easier (than OHP or blackboard). Student feedback is always that they have no problem reading my notes."

Online Prioritised Reading Lists: Faculty of Education Library

<u>Background and Drivers</u>

The Faculty of Education has a diverse student population, with a variety of different needs and access arrangements. As well as supporting a large full-time population, the Education Faculty is home to a number of distance learners, PGCE students on placement, and part-time students. By nature of their study arrangements, many of these students are unable to regularly access the Education Faculty Library in person, and require support from the library staff with sourcing materials for their learning. These drivers, combined with the increasing demand to provide online resources due to limited print copies of core texts, have galvanised the Education Faculty Library to develop a sophisticated yet accessible Moodle resource for their students. The Faculty of Education's proactive and reflexive approach to accessible online materials is highly valued by colleagues and students, who share a positive and collaborative relationship with library staff.

Inclusive Teaching and Learning

The Faculty of Education foster a collaborative relationship with students and academic staff, in order to provide both online and print materials on a well-structured, accessible online platform. The individual course Moodle sites interface seamlessly with the library's own Moodle site, which allows academic staff to have their own course pages, while the library site provides support with regards to reading lists and library services. For each course and module, online copies of texts are made available, as well as a link to the library catalogue information in case students would prefer to use print materials. For distance learners or students who are unable to attend the library in person for whatever reason, these resources are essential to inclusion.

As well as the easy accessibility of these resources, reading lists for modules are also prioritised in terms of "core" and "additional" readings. This is a valuable inclusive strategy for many disabled students. Particularly for students with dyslexia, reading vast quantities of text can be challenging, and it can be exasperating when many of the set readings are not referred to in the lecture or class. Prioritised reading lists give students a more complete understanding of the direction and key arguments being discussed in the course. It is important to note that being able to read copious amounts of material is not generally a competency standard and thus, prioritised reading lists are a justifiable inclusive strategy.

Modernity, Globalisation and Education 16-17

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Section 1: Modernity and questions of justice in education

Lecture 1: Modernity, multiple modernities, and beyond: postcolonial perspectives in education

11th October 2016
Arathi Sriprakash

This session introduces the major sociological debates about modernity and its consequences for education. We examine how particular understandings of the modern have come to shape global educational norms. We review critical responses to the modernisation thesis by proponents of 'multiple modernities' as well as postcolonial and decolonising perspectives. We apply these theoretical debates to a consideration of the possibilities and consequences of including indigenous knowledges in 'modern' schooling.

Core Readings:

- Bhambra, G. (2007) *Rethinking Modernity. Postcolonialism and the sociological imagination*. Basingstoke: Palgrave Macmillan[Chapters 1 and 3].
  Read ebook online
  Check University Library availability here

- Sarangapani, P. (2003) Indigenising Curriculum: Questions posed by Baiga vidya, *Comparative Education*, 39:2, 199-209
  Available online

- Tuhiwai-Smith, L. (2006) 'Colonizing Knowledges' in Lauder et al. *Education, Globalisation and Social Change* . Oxford: Oxford University Press.
  Chapter 39 available here

- Aníbal Quijano (2007) COLONIALITY AND MODERNITY/RATIONALITY , *Cultural Studies*, 21:2-3, 168-178
  Available online

Additional Reading:

- Fazal Rizvi , Bob Lingard & Jennifer Lavia (2006) Postcolonialism and education: negotiating a contested terrain, *Pedagogy, Culture & Society*, 14:3, 249-262,
  Available online

- Welch, A. (2007) Technocracy, Uncertainty, and Ethics: Comparative Education in an Era of Postmodernity and Globalisation. In Comparative Education: the Dialectic of the Global and the Local. Arnove, R & Torres, C (Eds.). Lanham: Rowman & Littlefield Publishers.
  Read ebook online
  2010 ed: Check Faculty Library availability here
  2007 ed: Check Faculty Library availability here

- Schmidt, V. (2006) Multiple Modernities or Varieties of Modernity? *Current Sociology* 54(1): 77-97
  Available online

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Below is feedback from students using the Education Faculty Library's Moodle resources and online prioritised reading lists:

"I'm a first year studying Education with History at Emmanuel and am using Moodle to access the reading lists for all Education lectures. I just wanted to say a big thank you to all the librarians for making the site so useful, especially with regard to putting books, articles etc. online. Being able to access the texts we need to read, without having to go to the library, has been invaluable. I'm sure all the Education students feel the same way and we really appreciate all the work and time that has gone into such features."

"As an EdD student, studying for a professional doctorate, the inclusive approach of the Faculty of Education, and particularly the library there, has been invaluable. Studying while working full time already presents me with significant challenges regarding time and these are exacerbated by my disabilities. Having prioritised online reading lists allows me to focus my reading when required, and having all taught session materials on Moodle in advance of the sessions allows me to prepare and better engage with these sessions. The fact that electronic copies of nearly all recommended readings are also available on Moodle is also such an assistance for students who do not visit the faculty building on a regular basis. The staff at the library are exemplary and proactively ask me what support they can provide, which really enhances my experience as a doctoral student."

Student-Led Curriculum Design: HSPS

Background and Drivers

The Faculty of Human, Social and Political Sciences is an academic community whose remit includes a range of disciplines within the social sciences. They have a large research community and value engagement with their students to develop a relevant and stimulating education. In view of this, a working group within HSPS called Centre for Research in the Arts, Social Sciences and Humanities (CRASSH) ran a series of events for staff and students titled "Decolonising the Curriculum in Theory and Practice". These interactive workshops allowed staff to better understand the concerns of students with regards to diversity and inclusion in the faculty curriculum.

Inclusive Teaching and Learning

The HSPS curriculum workshops are an excellent method of promoting inclusivity, both within student communities and within the curriculum. With regards to the former, holding student-led workshops on curriculum design allowed students agency within their own learning and gives academics a better insight into the interests and concerns of their cohort. The opportunity to collaborate in curriculum design has positive outcomes for student satisfaction, engagement and inclusivity. Moreover, these workshops facilitated a dialogue between staff and students which is an important aspect of inclusive practice.

Another aspect of inclusion developed by these sessions is that of marginalised voices within academic or pedagogical spaces. This series of workshops was primarily concerned with the privileging of academic culture within the global north, but also considered a great number of other aspects of identity that are objects of discrimination within academic culture, such as gender, sexuality, race, religion and disability. In this sense, inclusive teaching and learning must not necessarily be confined to practical strategies within the classroom, but can be extended to all aspects of education, including curriculum design.

Feedback

Dr Manali Desai, an academic staff member in HSPS who facilitated these workshops, commented:

"The 'Decolonizing the Curriculum' seminars held during 2016-17 at CRASSH discussed how the exclusion of writings by scholars of the global south, and the challenges they often pose to western and Eurocentric assumptions has led to a relatively narrow and myopic curriculum across the disciplines. The seminars were very well attended by UG and PG students across the university. We are now discussing ways forward to create a genuinely more inclusive and decolonized curriculum at Cambridge."

The University of Cambridge Student's Union Women's Officer, Audrey Sebatindira, observed:

"The HSPS tripos is no different from other subjects in being Eurocentric. Many academics and students have done well to make it one of the most decolonised triposes on campus, but other subjects need to follow suit and receive wider faculty support. Events like Transforming the Tripos can achieve this by bringing together students and academics interested in decolonisation, who can produce intellectually rigorous alternative reading lists and begin planning for Cambridge's decolonised future."

Lecture Capture

Lecture capture is an example of how technology can enhance learning and promote inclusion. This technology has the power to increase student satisfaction, produce equality of access, and promote flexible learning. Participating institutions were in unanimous agreement that students are increasingly asking for the provision of lecture capture on their courses. Student feedback on this mode of technology was reported to be resoundingly positive. Institutions where lecture capture was offered by the majority of academic departments indicated that students made good use of online lecture recordings. The University of Manchester's lecture capture pilot has some externally available data on the utilisation of lecture capture at the institution. This study reported that 5,000 students used the recordings during the pilot period (University of Manchester, 2013). Moreover, 94% of students surveyed in this pilot would like the service to be more widely available and 88% indicated that lecture capture availability increased their course unit satisfaction.

At the University of Cambridge, lecture capture is in the pilot stage and is currently under review, although preliminary analysis of student feedback is reported to be extremely positive.

Student Feedback

Below is feedback from disabled students who made use of lecture capture in the University of Cambridge pilot study:

"I am slow at making notes and often miss parts of the lecture trying to get stuff down. Lecture capture has helped me work at my own place. I am eligible to record lectures myself but didn't have the equipment until the end of term. With lecture capture the recordings are good quality and integrated with the slides (I'm not sure my own recordings would be)."

"Have eye problem that means I often have to take dilating drops which means I can't easily see lecture slides and/or my notes in the theatre - recordings allow me to recap what I couldn't see/write down. Mental health conditions can mean I miss lots of contact hours - recorded lectures are hugely helpful with this."

"Has definitely helped; I normally also record lecture audio, however videos provide a superior alternative given that the writing of the notes is accompanied, in sync, by the audio."

"I really hope that the lecture capture system goes university-wide. It has been an extremely helpful tool for me to cope with my studies and for future revision during the holidays."

Making the most of Supervisors: Postgraduates

There is a great deal that differs between postgraduate and undergraduate academic life, which can present a unique set of issues for disabled students. In many ways, postgraduate study is a great deal less structured than other modes of education. Postgraduates are expected to engage with a high level of independent study, and support comes primarily from one's supervisor(s). In this sense, postgraduate students are required to organise their time, prioritise their own reading, and develop a productive working relationship with their supervisor(s). Additionally, working on an individual project, often in isolation, can present difficulties with regards to mental health issues (Levecque et al, 2017).

A study by Levecque and colleagues found that one in two PhD students experience psychological distress and one in three is at risk of a common psychiatric disorder. Moreover, work and organizational context were found to be significant predictors of PhD students' mental health. This study further demonstrates the demand for more robust coping strategies to be communicated to postgraduate students, in order to alleviate stress and help support their studies. Moreover, the Equality Challenge Unit's 2014 Statistical Report, demonstrates that undergraduates are more likely to disclose a disability than postgraduates (ECU, 2014). This finding further evidences a demand for inclusive practices to be embedded within postgraduate education, in order to ensure all students are supported, regardless of disclosure.

Supervisors and how they are utilised can set the tone for the entire Masters/PhD. Most students have one or two supervisors for the duration of their postgraduate studies. Thus, maintaining a good relationship that works for both parties is imperative. The recommendations below have been compiled from engaging with postgraduate students and discussing strategies that could allow students to better make the most of time with supervisors. These strategies would be particularly useful for disabled students with a range of barriers to learning.

- At the beginning of the year, make any individual needs/requirements known to your supervisor and have an open discussion regarding the structure of the year and what is expected of you.
- It also may be useful to have a discussion around what supervisions are for and how they can be used productively.
- Discuss accessibility issues in terms of location/time to meet e.g. it could be that students take medication that makes them drowsy at certain times of day.
- Try and keep supervisions at regular intervals in order to structure weeks and months. If this is not possible, implement alternative modes of structuring time in postgraduate study.
- Explore different software a student could use in their study, including assistive technology such as MindView, ClaroRead etc.

- Discuss whether it might be useful to set an agenda for each supervision so you're both clear on the topics of discussion/points to make and are able to have a productive meeting.
- Set targets, define tasks and help prioritise reading where appropriate.
- Record the meeting and take minutes/notes following the supervision, with clear and defined action points. Send your supervisor a summary of your notes along with the action points in order to check the outcomes of the discussion are known and understood.

(Farrar and Young, 2007)

Postgraduate students at the University of Cambridge stated:

"Postgraduate academic life can feel like it lacks structure relative to that of undergraduates, who are set regular essays and contact time with teachers. By organising and planning meetings with my supervisor, my studies have more direction and I am able to make effective use of my time."

"Having previously worked in corporate environments, I find it easier to stay on task in meetings with my supervisor when there is a pre-agreed agenda of key discussion points."

"I audio record meetings with my supervisor so that I can refer to this when I don't understand something I've written in my notes."

8. Recommendations

1. To further embed inclusive teaching and learning within University strategy and vision (e.g. learning and teaching and digital education strategy).
2. That the Centre for Teaching and Learning Steering Group coordinates and implements the recommendations resulting from this report.
3. Promote inclusive teaching and learning case studies via CCTL website.
4. Greater utilise teaching awards to reward inclusive practice.
5. Increase collaboration between the DRC and academic faculties and departments on development and understanding of inclusive teaching and learning.
6. Further develop collaborative partnerships between Librarians and Academic staff, to support the use of technology and online platforms in teaching and learning.
7. Strengthen recognition of inclusive practice within academic promotion pathways.
8. Support the extension and expansion of the Lecture Capture pilot.
9. Develop an inclusive teaching and learning online training module.

Recommendation	Lead	Action(s)	Timescale	Resource	Evaluation
1. To further embed inclusive teaching and learning within University strategy and vision (e.g. learning and teaching and digital education strategy).	Pro Vice Chancellor for Education and Educational and Student Policy Section	• Define inclusive teaching and learning in the Cambridge context. • CCTL Steering Group to embed a focus on inclusion into the departmental learning and teaching reviews. • General Board of Education Committee to embed inclusive teaching and learning within the learning and teaching strategy.	July 2017-July 2018		• By 2020 "inclusivity" is embedded as a core value within university vision and strategy. • Inclusive teaching and learning a key feature within the learning and teaching strategy.

Recommendation	Lead	Action(s)	Timescale	Resource	Evaluation
2. That the Centre for Teaching and Learning Steering Group coordinates and implements the recommendations resulting from this report.	Pro Vice Chancellor for Education and CCTL Steering Group	• Steering group's membership to include DRC representation. • Steering group to create a strategy for implementing the recommendations that result from this report.	July 2017-December 2018		• By June 2018 the CCTL Steering Group to review the status of each recommendation and identify scope for further progression.
3. Promote inclusive teaching and learning case studies via CCTL website.	Centre for Teaching and Learning	• CCTL to identify any additional case studies of good inclusive practice to those detailed in this report. • CCTL to publish case studies on it's website. • CCTL Communications Officer (to be appointed) to continue to disseminate case studies on inclusive teaching and learning.	Mid-June 2017-December 2017		• Use website visitation analytics to measure engagement with academic staff members.
4. Greater utilise teaching awards to reward inclusive practice.	Centre for Teaching and Learning	• CCTL to steer new and existent awards to reward good inclusive practice. Awards such as the Pilkington prize and the Teaching and Learning Innovation Fund could be made on the basis of good inclusive practice.	Mid-June 2017-June 2018		• Within a year, be able to demonstrate awards that have been made to academic staff of the basis of inclusive practice.
5. Increase collaboration between the DRC and academic faculties and departments on	DRC and Centre for Teaching and Learning	• Support the proposed restructure of the DRC to allow greater opportunities for the Head of Service and Disability Advisers to collaborate with	Mid-June 2017-ongoing		• DRC re-structure completed in time for the move to the new Student Services Centre in

Recommendation	Lead	Action(s)	Timescale	Resource	Evaluation
development and understanding of inclusive teaching and learning.		Departments and Academic Practice. • Head of the DRC to be included in the CCTL steering group.			2018. • Head of the DRC to be included in CCTL Steering Group meetings from mid-June 2017.
6. Further develop collaborative partnerships between Librarians and Academic staff, to support the use of technology and online platforms in teaching and learning.	CCTL Steering Group: Library Heads and Heads of Schools and Faculties	• All new academic staff to be required to have a library induction upon starting. This will include information on how to use Moodle effectively and what services the library can provide with regards to inclusive teaching. • CCTL steering group to develop a strategy for greater collaboration between librarians & academic staff.	July 2017-ongoing		• Within strategy for use of learning platforms (Moodle), include evaluation measure.
7. Strengthen recognition of inclusive practice within academic promotion pathways.	HR Lead: Sarah Botcherby CCTL Steering Group	• Holly Tilbrook to communicate with HR on academic promotion pathways currently under review. • Steering group to configure wording of inclusive teaching and learning indicator and consider ways in which this could be evidenced.	Mid-June 2017-November 2017		• Inclusive teaching measures are added to academic promotion pathways criteria as proposed.

Recommendation	Lead	Action(s)	Timescale	Resource	Evaluation
8. Support the extension and expansion of the Lecture Capture pilot.	PVC Education, UIS Head of Education, Administration and Student Services:	• Steering group to review outcomes from lecture capture pilot (when available). • Steering group to consider ways to secure academic buy-in for lecture capture.	July 2017-ongoing	Resources required to equip teaching spaces with the technology	• Include question on DRC student survey on lecture capture. • Perform analysis of voluntary take-up of lecture capture once it is extended to departments and faculties outside of the pilot.
9. Develop an inclusive teaching and learning online training module.	DRC Head and UIS Head of Education, Administration and Student Services, CCTL and Academic Practice leads	• Steering group to discuss useful and accessible content for the module to include. • Steering group to discuss the best method of securing academic staff buy-in.	July 2017-July 2018	Module requires limited investment to be developed	• Feedback measure to be embedded within online module on inclusive teaching and learning. • Visitation analytics for online module to be evaluated.

Recommendation 1: To further embed inclusive teaching and learning within University strategy and vision (e.g. learning and teaching and digital education strategy).

It is recommended that when opportunities to incorporate "inclusion" within university strategies, missions and visions, there should be a drive to embed inclusivity as a core value within these documents. For example, the learning and teaching strategy should better reflect the importance of inclusive practice for learning equity. This recommendation is a direct result of Finding 5, which demonstrates the value of incorporating inclusion within the language of the university, and the effect that this has on institutional culture.

Recommendation 2: That the Centre for Teaching and Learning Steering Group coordinates and implements the recommendations resulting from this report.

A significant finding from this report is the need for collaboration with regards to being strategic about embedding inclusive teaching and learning. For inclusion to become embedded within higher education, staff members from across the university must coordinate to achieve this aim. Members of the university necessary to effect change include:

- Pro VC for Education
- Senior College representation
- Library representation
- Head of DRC
- Chair of Senior Tutors Education Committee
- Representative from Educational and Student Policy
- Representation from Academic Practice
- Representative from UIS
- Senior Academics within departments

The CCTL Steering Group reflects this membership, with the exception of DRC representation, and therefore is well placed to take on the recommendations from this report.

It is also recommended that the CCTL Steering Group include DRC representation among their membership, in order to provide a disability perspective to issues relating to inclusive teaching for disabled students.

Recommendation 3: Promote inclusive teaching and learning case studies via CCTL website.

Finding 1 in the previous section of this report demonstrates the utility of case studies in impacting effective change among academic communities. It is recommended that the case studies that result from this report, and those relating to inclusivity currently being collected by CCTL, should be

displayed on the DRC and CCTL websites and promoted in other areas such as teaching forums/workshops/events. We should continue to celebrate good inclusive practice and publicise its benefits. Further discussions are required with regards to the most effective and engaging method of presenting these case studies to academic staff, which may be progressed by the recruitment of an Engagement Officer within the CCTL (post due to be filled in the academic year 2017/2018).

Recommendation 4: Greater utilise teaching awards to reward inclusive practice.

Steering teaching awards to reward inclusive practice is a method of demonstrating that inclusion is a core value of the university. Making awards on the basis of inclusive practice sends a clear message that inclusion in teaching is considered to be good practice and instating reward mechanisms for inclusion will further embed inclusive teaching within academic culture.

There is scope to reward excellent inclusive practice within the existent teaching honours awarded at the University. Awards such as the Pilkington Prize could be made on the basis of inclusive practice, to emphasise the degree to which the CCTL hold this as a core element of "best practice". Moreover, applicants to the Teaching and Learning Innovation Fund could be encouraged to develop proposals that work towards a more inclusive learning environment.

Recommendation 5: Increase collaboration between the DRC and academic faculties and departments on development and understanding of inclusive teaching and learning.

There is a need to move away from a reasonable adjustments model which focusses solely on individual adjustments for individual students, to one which looks at more inclusive and accessible provision where a range of learning needs are considered as part of the design of teaching and learning practice – including assessment (for example: lecture capture, provision of electronic copies of materials in advance of lectures for all students, alternative modes of assessment). In order for this to be achieved, greater collaboration is required between the DRC/CCTL/Academic Practice and academic faculties and departments.

In order for the DRC to support this activity, further consideration is required of the proposed restructure of the DRC, in order that disability advisers have greater ability and opportunity to take an active role in collaborating with academics to further discuss, design and embed inclusive practices.

Recommendation 6: Further develop collaborative partnerships between Librarians and Academic staff, to support the use of technology and online platforms in teaching and learning.

In order to provide equitable educational opportunities across the university, it is essential that all students have equal access to learning materials and resources. Moodle is key to achieving this aim and it is imperative that academic staff have sufficient support to improve their provision of online resources. Librarians are an invaluable resource in terms of their knowledge of assistive technologies,

online resources and learning platforms (Moodle). Moreover, studies show that Librarians do a great deal to help "non-traditional" students overcome barriers to learning, often through the use of technology (Heery, 1996; Hull, 2001). In this sense, not only do librarians have the technical knowledge, but they also have a great deal of contact with a wide range of students with a diverse set of needs, making them a hugely valuable resource for academic staff.

Librarians in colleges, faculties and departments regularly undergo training in order to stay up to date with the latest and most innovative learning tools. As not all academic staff are required to undergo this training, the use of Moodle and assistive technologies in teaching can vary considerably from academic to academic. For these reasons, greater collaboration between academic staff and librarians is a key recommendation. A practical example of how this can be achieved is further explored in the section on case studies with the University of Cambridge's Faculty of Education.

In order to foster greater collaboration between librarians and academics, it is recommended that all new academic staff undergo a library induction. This introductory session will allow library staff to introduce the faculty use of learning platforms such as Moodle and make new staff aware of opportunities for collaboration.

Recommendation 7: Strengthen recognition of inclusive practice within academic promotion pathways.

Embedding inclusive teaching within university policy and procedure is becoming increasingly common within UK institutions. In her address at the NADP conference, Professor Sue Rigby (Deputy Vice Chancellor for Student Development at the University of Lincoln) spoke about the potential for procedures such as promotion pathways to incorporate inclusion within its processes. While many universities already have this measure in place, the University of Cambridge do not currently have specific indicators in their academic promotion pathways relating to inclusivity in teaching and learning. The importance of embedding inclusion within the language of a university, through processes and procedures, was discussed in Finding 5 and remains a crucial step in changing the culture of the institution to reflect a more inclusive outlook.

Recommendation 8: Support the extension and expansion of the Lecture Capture pilot.

Following Finding 3, which demonstrates the utility of technologies in progressing the inclusivity agenda at participating universities, it is recommended that lecture capture be extended to additional departments and faculties at the University of Cambridge. As has been previously discussed, interviewees were forthcoming in reporting that student feedback was resoundingly positive with regards to lecture capture. The University of Cambridge's lecture capture pilot is in progress and is currently being reviewed, although preliminary findings indicate that feedback has been extremely positive. It is recommended that, should the outcomes of this review be positive as advised, this technology should be extended out to the widest possible group of students. Further

information regarding the benefits of lecture capture can be found in the case studies section of this report.

Recommendation 9: Develop an inclusive teaching and learning online training module.

This report has evidenced that there is a demand for student services to provide more training and awareness raising for academic staff in relation to inclusive teaching and learning. The DRC have proposed the development of an inclusive teaching and learning online training module for academic staff, in a similar format to the existent module on equality and diversity. The case studies in this report and other collected by the CCTL can be incorporated into this module. The proposal for this online module can be found in appendix B. The proposal states:

"The module will help staff to develop an understanding and put into practice principles of inclusive teaching and learning/universal design in their teaching and support, with a specific focus on disability equality/support for disabled students. It would draw on existing examples of good practice at Cambridge. It is intended that the module will also showcase principles of inclusive teaching and learning design, such as concept of the flipped lecture, the use of podcasts and in-built assessment (MCQs) using supporting technology such as Panopto."

For this module to be developed some limited investment is required as some development work will be outsourced. However, once the module has been created, it will be available for all staff to use and information regarding how to be inclusive in teaching and learning will reach a wider audience. This proposal has been discussed and supported by the CCTL Steering Group and options are currently under consideration (including potential sources of funds).

9. Conclusion

This report explains and illustrates how inclusive teaching and learning principles and practices are being achieved in the UK Higher Education sector and makes recommendations to the University of Cambridge as to how it can become an even more inclusive institution.

In the opening section of this report, "Drivers for Change", there is a discussion of the various external and internal pressure points that have made this research necessary. The recent government changes to the provision of DSAs are the most notable challenge to the sector, as the "rebalancing" of responsibility between the government and HEPs requires an institution-wide response. Moreover, the increased service demand on the Disability Resource Centre creates a further impetus for inclusive teaching and learning practices to be adopted.

As well as providing a comprehensive explanation as to the premise and influences of inclusive teaching and learning as a pedagogical strategy, this report addresses and counters many of the common misconceptions relating to inclusive practice. Following the provision of evidence-based

responses to the perceived threat of inclusive teaching, the report moves on to the empirical analysis of inclusive teaching and learning strategies in the sector.

This took the form of a research project conducted with 7 UK Higher Education Institutions, resulting in a series of key findings, which have been used to inform the recommendations in this report.

In addition to the findings from the sector, this report offers case studies of "best practice" with regards to inclusive teaching and learning. These insights are supported by student feedback and an explanation as to how they facilitate an inclusive environment. Following the finding that case studies are an effective method of promoting inclusive teaching methods, it is recommended that these case studies be disseminated to academic staff through multiple pathways (such as the DRC and CCTL website).

The recommendations from this report are a direct outcome of the findings from the empirical research undertaken on inclusion in the sector, as well as the individual analysis of the University of Cambridge as an institution. The General Board of Education Committee (GBEC) is asked to review and consider this report and its recommendations and offer commentary.

Hester Hockin-Boyers
Graduate Researcher
6th June 2017

Supervisor:
John Harding
Head of the Disability Resource Centre

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APPENDIX A

UNIVERSITY OF CAMBRIDGE
Disability Resource Centre

Hester Hockin-Boyers
Ambitious Futures Trainee

Inclusive Teaching and Learning

- Do you have a dedicated role within the University for promoting/regulating the provision of inclusive teaching and learning?

    o If so, where does this role sit in terms of the structure of the institution?

- How would you describe your institution's strategy with regards to inclusivity and how has this been implemented?

    o What has been the impact and how was this measured?

- Can you recommend any strategies that have been successful in achieving inclusive teaching outcomes?

    o Have any specific strategies been unsuccessful?

- What response have you had so far from various academic members of the school, with regards to the promotion of inclusive teaching and learning practices?

- Has your institution been involved in collecting case studies of 'best practice' from across the University?

- What role has senior leadership played in your inclusive teaching and learning strategies so far?

APPENDIX B

University of Cambridge

Teaching and Learning Innovation Fund, 2016-17

Application Form

Please complete all fields below; application forms should be signed by the Head of Department for the host institution to indicate support.

Short name of project:

On-line inclusive teaching and learning interactive module for academic and support staff

Brief description of project (maximum <u>500 words</u>); *note that this should include a clear indication of the need for the project, its key aims/objectives, and how the TLIF funding will be used***:**

The proposal is to develop an interactive on-line module to be based in Moodle and available to all those who teach/support students. The module will help staff to develop an understanding and put into practice principles of inclusive teaching and learning/universal design in their teaching and support, with a specific focus on disability equality/support for disabled students. It would draw on existing examples of good practice at Cambridge. It is intended that the module will also model and showcase principles of inclusive teaching and learning design, such as concept of the flipped lecture, the use of podcasts and in-built assessment (MCQs) using supporting technology such as Panopto.

The requirement for this intervention has become more urgent and apparent due to the reduction of Disabled Students' Allowances (DSAs) funding driving both a need to reduce the use of individualised adjustments and to move towards a more accessible model of inclusive teaching and learning. This will also help Cambridge to evidence our support and development of inclusive practice and widening participation, meeting the requirements and direction from OFFA, HEFCE and for the TEF, to specifically focus on disabled students (and within that protected group specific disability categories – e.g. students with mental health conditions, autism or specific learning difficulties) and inclusive teaching practice.

The DRC currently has a range of training courses which are offered through PPD and on-line information and resources, but reach/coverage would be complimented by this additional resource which would add another mode of delivery/access. It is suggested that the on-line module could be part of the induction materials made available to any new member of staff, therefore extending that reach considerably.

Objectives/outcomes of the module will be:

To provide clear information on the legislative framework and duties towards disabled students under the Equality Act (2010)

To demonstrate how to adjust learning and teaching activities to make them accessible to disabled students, and why this can be both cost and time effective

To provide practical examples already existent within the Cambridge context

To learn how to identify teaching and learning activities which are not accessible to disabled students

To be aware of other sources of support for disabled students within the Collegiate University

To develop confidence in working with disabled students

The TILF funding will be used to secure the time of a developer to produce the module with input on content from the DRC, CCTL and Academic contacts.

Applicant / key contact name and contact details:

Kirsty Wayland; Disability Development Consultant, DRC, kw226@cam.ac.uk 01223 (7)66 903

John Harding, Head of the Disability Resource Centre, jah214@cam.ac.uk 01223 764083

Name of academic/s to be engaged in the project, and an indication of the proportion of time they are intending to devote to it:

Prof. Lorraine Gelsthorpe(Criminology) CONFIRMED, Dr Nick Bampos (Chemistry, and University Disability Equality Champion) CONFIRMED , Dr Dee Scaddon (BioChem) CONFIRMED, Dr Richard Partington (History) CONFIRMED, Dr Jane McLarty (Divinity) CONFIRMED, Dr Claire Barlow (Engineering) CONFIRMED , Dr James Kelly (Queens') CONFIRMED have all agreed to contribute as academic reviewers.

Amount requested, including detailed breakdown of costs:

Reviewing the costs of equivalent projects (such as the University's Equality and Diversity Essentials module) which was completed in 2009, a total sum of £15,000 would be sufficient.

Development 6.5k

Filming 4k

Subtitles plus accessibility audit 2K

Publicity and marketing 1.5K

Editing 1K

Outline of the aims/objectives and expected benefits:

Aims/Objectives:

- To provide clear information on the legislative framework and duties towards disabled students under the Equality Act (2010)
- To demonstrate how to adjust learning and teaching activities to make them accessible to disabled students, and why this can be both cost and time effective

- To provide practical examples already existent within the Cambridge context
- To learn how to identify teaching and learning activities which are not accessible to disabled students
- To be aware of other sources of support for disabled students within the Collegiate University
- To develop confidence in working with disabled students

Benefits:

- Significantly extend the reach of training provision in this area
- Provide an additional element of blended learning to training provision on this topic complementing other DRC and CCTL interventions
- 'Mainstream' the provision of training provision away from this being seen as a disability issue only
- Promote examples of existing good practice in relation to inclusive teaching and learning at Cambridge in order to encourage wider adoption and application.
- The Government's reduction of Disabled Students' Allowances (DSAs) funding encourages the reduction in the use of individualised adjustments and to move towards a more accessible model of inclusive teaching and learning.
- Clear evidence of institution commitment to developing teaching and participation for groups with protected characteristic under the Equality Act (2010)
- This will also evidence support and development of inclusive practice and widening participation, meeting the requirements and direction from OFFA, HEFCE and for the TEF, to specifically focus on disabled students and inclusive teaching practice.

Indication of how the success of the project will be measured at the end of the project, and key evaluation criteria:

It is intended that the module will include an element of summative assessment to allow completion of the module. Moodle analytics will also allow participation data to be analysed and reported on.

Name of the course/paper the project is intended to affect and an estimate of how many students would benefit each year:

There are more than 2200 students who have disclosed a disability to the University, with a further cohort who for one reason or another have chosen not to. With effective support, promotion and engagement, this project has the potential to enable them all.

Indication of how the project will be financed after expiry of the grant, if applicable:

It will be maintained by members of the DRC once established. Resources would be developed to have a long lifespan via consideration of on-line future-proofing guidance.

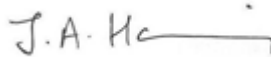**Assessment of the wider relevance of the project:**

Within the guidance issued in the last year via OFFA and HEFCE and through the anticipated foci of the TEF it would be a significant advantage to be able to demonstrate that the University has engaged in development activity to extend understanding and practice in relation to inclusive teaching learning and the support for and increased participation of particular identified disadvantaged groups.

It also makes economic sense to promote inclusive practice given the reduction in available public funds to support individual reasonable adjustments (with anticipation that DSAs funding will be further cut) at a time when the proportion of students disclosing disability rises each year.

Improving the universities resources in the inclusion of disabled students will improve retention and results and will help us to get ahead with the TEF.

(if applicable) **Indication of any relevant permissions needed and whether they have been obtained (e.g., intellectual property, health and safety):**

Not applicable

Signature of applicant: **Kirsty Wayland**	Signature of Head of Department: **John Harding**
Kirsty Wayland	*J.A. Ha—*
Date: 19th January 2017	Date: 19th January 2017

Application forms should be submitted to Melissa Rielly, Educational and Student Policy, Academic Division, 17 Mill Lane, Cambridge (melissa.rielly@admin.cam.ac.uk), not later than **4.00pm on Monday, 23 January 2017**. Applications received after this deadline will not be considered.

APPENDIX C

Key terms

- HEPs =   Higher education providers
- DSAs =   Disabled Students' Allowances
- HEFCE =   Higher Education Funding Council for England
- TEF =   Teaching Excellence Framework
- UDL =   Universal Design for Learning
- OFFA =   Office for Fair Access
- TEF =   Teaching Excellence Framework
- NCOP =   National Collaborative Outreach Program
- QAA =   Quality Assurance Agency
- HEA =   Higher Education Academy
- DSA-QAG =   DSAs - Quality Assurance Group
- SFE =   Student Finance England
- SENDA =   Special Educational Needs Disability Act
- DDA =   Disability Discrimination Act
- QAF =   Quality Assurance Framework